



College Hill Water Filtration Plant



# WATER FUND CAPITAL PROJECTS – SUMMARY OF APPROPRIATIONS

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Resources:					
Pay -as-you-go Water Operating Fund	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Amount to be Provided by General Obligations Bond Issues	1,415,000	4,616,000	1,196,000	1,130,000	1,480,000
Total Estimated Resources	2,415,000	5,616,000	2,196,000	2,130,000	2,480,000
Locally Financed Projects:					
Small water mains	400,000	400,000	400,000	400,000	750,000
Annual extensions	350,000	350,000	350,000	350,000	350,000
Water treatment plant improvements	0	0	0	0	0
Distribution system improvements	750,000	750,000	750,000	750,000	750,000
Tank Rehabilitation	915,000	684,000	696,000	630,000	630,000
College Hill Filtration Plant Filters	0	3,432,000	0	0	0
	2,415,000	5,616,000	2,196,000	2,130,000	2,480,000
Total Proposed Projects	\$2,415,000	\$5,616,000	\$2,196,000	\$2,130,000	\$2,480,000



### WATER FUND CAPITAL PROJECTS FINANCING PLAN

As part of the annual budget process, the City appropriates funding for capital projects in accordance with the Five Year Capital Improvement Plan. Typically, the City conducts annual bond financings in the last half of each fiscal year. New bond issues are based on the expected cash flow requirements of projects between bond sales and may differ from funding requirements for annual appropriations.

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Balance Forward	\$3,268,005	\$2,062,672	\$2,009,672	\$1,150,672	\$1,320,672
Income: Pay -as-you-go Water Operating Fund General Obligation Bond Proceeds	1,000,000 4,200,000	1,000,000 2,900,000	1,000,000 2,000,000	1,000,000 1,300,000	1,000,000 1,300,000
Balance and Income	5,200,000	3,900,000	3,000,000	2,300,000	2,300,000
Cash Flow Requirements Incomplete projects as of July 1, 2005 FY 2006-2010 CIP Projects	3,019,333 (1) 3,386,000 (1)	0 (1) 3,953,000 (1)	0 3,859,000 (1)	0 2,130,000 (1)	0 2,480,000
Total Expenditures	6,405,333	3,953,000	3,859,000	2,130,000	2,480,000
Balance Forward	\$2,062,672 (2)	\$2,009,672 (2)	\$1,150,672 (2)	\$1,320,672 (2)	\$1,140,672

<sup>(1)</sup> Source: Department of Public Works, Utilities Division

<sup>(2)</sup> Balance forward provides estimated funding for projects until the annual bond sale typically in the last half of the fiscal year.



# FIVE-YEAR PROPOSED PROGRAMMING TO BE FINANCED BY THE CITY

Project Title	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
WATER					
Annual Water Petitions	350,000	350,000	350,000	350,000	350,000
Source of Funding					
Pay-As-You-Go	350,000	350,000	350,000	350,000	350,000
College Hill Water Filtration Plant Filters	0	3,432,000	0	0	0
Source of Funding					
G.O. Bond	0	3,432,000	0	0	0
Distribution System Improvements	750,000	750,000	750,000	750,000	750,000
Source of Funding					
G.O. Bond	500,000	750,000	750,000	750,000	750,000
Pay-As-You-Go	250,000	0	0	0	0
Water Main Replacement - Combined Sewer Overflow (CSO)	400,000	400,000	400,000	400,000	750,000
Source of Funding G.O. Bond	0	0	0	0	350,000
Pay-As-You-Go	400,000	400,000	400,000	400,000	400,000
Water Tank Rehabilitation	015 000	684 000	(0( 000	(20,000	620,000
Source of Funding	915,000	684,000	696,000	630,000	630,000
G.O. Bond	915,000	684,000	696,000	630,000	630,000
Total Estimates Submitted 06-10 CIP	\$2,415,000	\$5,616,000	\$2,196,000	\$2,130,000	\$2,480,000
Source of Funding					
G.O. Bond	1,415,000	4,866,000	1,446,000	1,380,000	1,730,000
Pay-As-You-Go	1,000,000	750,000	750,000	750,000	750,000
Other	0	0	0	0	0



FIVE-YEAR ESTIMATED NET COST	APPROPRIATIONS THROUGH 7/31/2004	ESTIMATED COST BEYOND PROGRAM PERIOD	TOTAL ACCUMULATED PROJECT COST
1,750,000	On-going	On-going	1,750,000
3,432,000	200,000	0	3,632,000
3,750,000	On-going	On-going	3,750,000
2,350,000	On-going	On-going	2,350,000
3,555,000	1,529,000	658,000	5,742,000
\$14,837,000	\$1,729,000	\$658,000	\$17,224,000
\$10,837,000 \$4,000,000 \$0 \$14,837,000			





SERVICE AREA Water Fund

PROJECT TITLE

DEPARTMENT **Public Works** 

LOCATION Various location within City limits

Project # (If existing)

# ANNUAL WATER PETITIONS, (FORMERLY WATER EXTENSIONS)

N/A

REQUEST TYPE

If request is a revision from previous year's submission, please describe changes and explain reason for change

Continuation N/A



#### PROJECT DESCRIPTION

Extensions of water lines are requested by petition process. These requests may include existing non-served properties, commercial development and new residential subdivisions. Also for reimbursement of developer costs to construct City water lines per City Code.

### RELATIONSHIP TO COMPREHENSIVE PLAN

Chapter 15, Page 15.7, Goal 1: Provide the citizens of Lynchburg with dependable, modern, high quality water and sanitary sewer service with sufficient capacity to meet the City's long-term requirements.

PROJECT MANAGER(S) Lee Newland PROJECT START DATE Recurring PROJECT COMPLETION DATE Recurring

FIXED ASSET DESIGNATION New Construction/Expansion

TIMETABLE

% Appropriation Needed
Engineering & Architectural
Construction

	FY	2006			FY	2007		FY 2008				FY	2009			FY	2010		
Q1	Q2	Q3	Q4	Q1	Q2	Q3	<i>Q4</i>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	<i>Q4</i>
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25

OPERATING BUDGET IMPACT (OVERALL OPERATING EXPENSES AND PROJECTED STAFFING REQUIREMENTS): Increases revenue from new water service customers, and increases costs to maintain new lines.

TOTAL PROJECT ESTIMATE (FOR THE COMPLETE LIFESPAN OF PROJECT)

TOTAL PRIOR APPROPRIATION THROUGH 7/31/04

FY 2006 - 2010 Estimate

Beyond FY  $2010\,\mathrm{Estimate}$ 

TOTAL PROJECT ESTIMATE

Continuing

\$1,750,000

Continuing

Continuing

## FIVE YEAR PROPOSED PROJECT <u>APPROPRIATION BY SUB-PROJECT</u>

Sub-Projects	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Program Period Estimate
City Engineering Service Charges	40.000	40.000	40.000	40.000	40.000	\$200,000
Construction	310,000	310,000	310,000	310,000	310,000	\$1,550,000
TOTAL	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$1,750,000

## FIVE YEAR PROPOSED PROJECT APPROPRIATION BY FUND

Fund	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Program Period Estimate
4017 Water Capital Project Fund	350,000	350,000	350,000	350,000	350,000	\$1,750,000
TOTAL	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$1,750,000

#### FIVE YEAR PROPOSED PROJECT EXPENDITURE CASH FLOW PROJECTIONS BY SOURCE OF FUNDING

Local: Pay-As-You-Go	350,000	350,000	350,000	350,000	350,000	\$1,750,000
TOTAL	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$1,750,000

SOURCES OF PROJECT FUNDING FY 2006 – 2010 (IN %): LOCAL =100%

STATE = 0 FEDERAL = 0

OTHER = %

DEPARTMENT PRIORITY

Project supports essential services

Project contributes to generation of new revenue





SERVICE AREA Water Fund

PROJECT TITLE

DEPARTMENT **Public Works** 

LOCATION
525 Taylor Street
PROJECT #
(If existing)

# COLLEGE HILL FILTRATION PLANT FILTERS

REQUEST TYPE

If request is a revision from previous year's submission, please describe changes and explain reason for change

Revised

A backwash tank and new line to replace the deteriorated existing backwash line has been added to the request. The estimated cost is based on a study completed in July 2003.



### PROJECT DESCRIPTION

The 14.0 million gallon per day College Hill plant was last upgraded in 1985. The filters are in need of repair. The project will include, depending on the Preliminary Engineering Report recommendations, renovation and replacement of filter media, bottoms, troughs, walls, surface wash or air scour equipment, valves and actuators, rate of flow controllers, water quality instrumentation, filter consoles, and associated SCADA equipment. The project may include modifications to chemical feed systems, laboratory improvements, control room and SCADA improvements, general building repairs, addition of a backwash surge tank, and rehabilitation or replacement of the existing backwash piping to sewer.

## RELATIONSHIP TO COMPREHENSIVE PLAN

Chapter 15, Page 15.8, Goal 1, objective 1.E.1: Maintain sufficient treatment capacity to sustain City growth, while meeting regulatory water quality requirements.

PROJECT MANAGER(S)
Roger Blankenship, Utilities Engr.

PROJECT START DATE Q3 FY 2005
PROJECT COMPLETION DATE Q3 FY 2007

FIXED ASSET DESIGNATION Maintenance/Capital Outlay

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TIMETABLE		FY	2006			FY	2007			FY 2	2008			FY 2	2009			FY 2	2010	
Activity (% Complete)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	QЗ	Q4
Land Acquisition																				
Engineering & Architectural	60		20	20	45	45	10													
Construction			50	50	50	50														
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OPERATING BUDGET IMPACT (OVERALL OPERATING EXPENSES AND PROJECTED STAFFING REQUIREMENTS):

The overall impact to the operating budget will be negligible.

TOTAL PROJECT ESTIMATE (FOR THE COMPLETE LIFESPAN OF PROJECT)

\$200,000

TOTAL PRIOR APPROPRIATION THROUGH 7/31/04

FY 2006 -2010 ESTIMATE \$3,432,000

BEYOND FY 2010 ESTIMATE

TOTAL PROJECT ESTIMATE

\$3,632,000

FIVE YEAR PROPOSED PROJECT APPROPRIATION BY SUB-PROJECT

						Program
Sub-Projects	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Period Estimate
Consultant Engineering		129,000				\$129,000
Contract Administration (Contractual)		223,000				\$223,000
Construction		2,800,000				\$2,800,000
Contingency		280,000				\$280,000
TOTAL	\$ 0	\$3,432,000	\$ 0	\$ 0	\$ 0	\$3,432,000

## FIVE YEAR PROPOSED PROJECT <u>APPROPRIATION BY FUND</u>

Fund	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Program Period Estimate
4017 Water Capital Project Fund		3,432,000				\$3,432,000
TOTAL	\$ 0	\$3,432,000	\$ 0	\$ 0	\$ 0	\$3,432,000

## FIVE YEAR PROPOSED PROJECT EXPENDITURE CASH FLOW PROJECTIONS BY SOURCE OF FUNDING

Funding Source	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total Funding
Local: G.O. Bond		1,769,000	1,663,000			\$3,432,000
TOTAL	\$ 0	\$1,769,000	\$1,663,000	\$ 0	\$ 0	\$3,432,000

SOURCES OF PROJECT FUNDING FY 2006 – 2010 (IN %):

LOCAL = 100%

STATE = % FEDERAL = %

OTHER = %

DEPARTMENT PRIORITY

THIS PROJECT ALSO HAS (A) COMPONENT (S) IN

Project supports essential services





SERVICE AREA **Water Fund** 

**DEPARTMENT Public Works** 

LOCATION Various locations within City limits

PROJECT#

PROJECT TITLE

(If existing)

## **DISTRIBUTION SYSTEM IMPROVEMENTS**

N/A

REQUEST TYPE

If request is a revision from previous year's submission, please describe changes and explain reason for change

Continuation



PROJECT DESCRIPTION

Water distribution system improvements at various locations throughout the City.

RELATIONSHIP TO COMPREHENSIVE PLAN

Chapter 15, Page 15.8, Goal 1: Objective 1.E. 4) Implement, to the maximum extent feasible, the Water System Master Plan update recommendations for the long-term maintenance of water supply and transmission capacity.

PROJECT MANAGER(S) Roger Blankenship, Utilities Engineer

PROJECT START DATE Recurring PROJECT COMPLETION DATE Recurring

FIXED ASSET DESIGNATION New Construction/Expansion

**TIMETABLE** Activity (% Complete) Land Acquisition Engineering & Architectural Construction

	FY	2006			FY	2007			FY	2008			FY	2009		FY 2010			
Q1	$Q_2$	Q3	Q4	Q1	Q2	Q3	Q4												
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25

OPERATING BUDGET IMPACT (OVERALL OPERATING EXPENSES AND PROJECTED STAFFING REQUIREMENTS): Lessens the impact on overall water operating budget for repairs and line breaks.

TOTAL PROJECT ESTIMATE (FOR THE COMPLETE LIFESPAN OF PROJECT)

TOTAL PRIOR APPROPRIATION THROUGH 7/31/04

FY 2006 -2010 ESTIMATE

BEYOND FY 2010 ESTIMATE

TOTAL PROJECT ESTIMATE

Recurring

\$3,750,000

Recurring

Recurring

FIVE YEAR PROPOSED PROJECT APPROPRIATION BY SUB-PROJECT

						Program
Sub-Projects	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Period Estimate
Consultant Engineering	75,000	75,000	75,000	75,000	75,000	\$375,000
Construction	675,000	675,000	675,000	675,000	675,000	\$3,375,000
TOTAL	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$3,750,000

For Street Overlay or General Street Improvement Programs Only (please check one)

## FIVE YEAR PROPOSED PROJECT APPROPRIATION BY FUND

						Program
Fund	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Period Estimate
4017 Water Capital Project Fund	750,000	750,000	750,000	750,000	750,000	\$3,750,000
TOTAL	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$3,750,000

## FIVE YEAR PROPOSED PROJECT EXPENDITURE CASH FLOW PROJECTIONS BY SOURCE OF FUNDING

Funding Source	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total Funding
Local: G.O. Bond	500,000	750,000	750,000	750,000	750,000	\$3,500,000
Local: Pay-As-You-Go	250,000					\$250,000
TOTAL	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$3,750,000

SOURCES OF PROJECT FUNDING FY 2006 – 2010 (IN %):

LOCAL = 100%

STATE = %

OTHER = %FEDERAL = %

DEPARTMENT PRIORITY

THIS PROJECT ALSO HAS (A) COMPONENT (S) IN

□ Project supports essential services



SERVICE AREA Water Fund

PROJECT TITLE

DEPARTMENT **Public Works** 

LOCATION Various location within City limits

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PROJECT # (If existing)

WATER MAIN REPLACEMENT- COMBINED SEWER OVERFLOW (CSO)

N/A

REQUEST TYPE

If request is a revision from previous year's submission, please describe changes and explain reason for change

Continuation N/A



#### PROJECT DESCRIPTION

Replacement of existing small water lines (1", 1-1/2", 2" and 4") located throughout the combined sewer area of the City with 8-inch diameter water main lines. Replacement is in conjunction with construction of CSO projects.

## RELATIONSHIP TO COMPREHENSIVE PLAN

Chapter 15, Page 15.7, Goal 1.A: Continue with Public Works Department's focus on maintenance of the existing water system and replacement of old mains.

PROJECT MANAGER(S)
Greg Poff, CSO Program Manager

PROJECT START DATE Recurring PROJECT COMPLETION DATE Recurring

FIXED ASSET DESIGNATION New Construction/Expansion

TIMETABLE

% Appropriation Needed
Engineering & Architectural
Construction

	FY	2006			FY	2007			FY	2008			FY	2009		FY 20			2010		
Q1	Q2	Q3	Q4	Q1	Q2	Q3	<i>Q4</i>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25		
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25		

OPERATING BUDGET IMPACT (OVERALL OPERATING EXPENSES AND PROJECTED STAFFING REQUIREMENTS): Lessens the impact on overall water operating budget for repairs and line breakages.

TOTAL PROJECT ESTIMATE (FOR THE COMPLETE LIFESPAN OF PROJECT)

 $Total\ Prior\ Appropriation\ through\ 7/31/04$ 

FY 2006 -2010 ESTIMATE

Beyond FY  $2010\,\mathrm{Estimate}$ 

TOTAL PROJECT ESTIMATE

Continuing

\$2,350,000

Continuing

Continuing

FIVE YEAR PROPOSED PROJECT APPROPRIATION BY SUB-PROJECT

TOTAL	\$400,000	\$400,000	\$400,000	\$400,000	\$750,000	\$2,350,000
Contingency	60,000	60,000	60,000	60,000	60,000	\$300,000
Construction	280,000	280,000	280,000	280,000	630,000	\$1,750,000
Consultant Engineering	30,000	30,000	30,000	30,000	30,000	\$150,000
City Engineering Service Charges	30,000	30,000	30,000	30,000	30,000	\$150,000
Sub-Projects	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Program Period Estimate

## FIVE YEAR PROPOSED PROJECT APPROPRIATION BY FUND

Fund	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Program Period Estimate
4017 Water Capital Project Fund	400,000	400,000	400,000	400,000	750,000	\$2,350,000
TOTAL	\$400,000	\$400,000	\$400,000	\$400,000	\$750,000	\$2,350,000

## FIVE YEAR PROPOSED PROJECT EXPENDITURE CASH FLOW PROJECTIONS BY SOURCE OF FUNDING

			<del></del>			
Funding Source	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total Funding
Local: G.O. Bond					350,000	\$350,000
Local: Pay-As-You-Go	400,000	400,000	400,000	400,000	400,000	\$2,000,000
TOTAL	\$400,000	\$400,000	\$400,000	\$400,000	\$750,000	\$2,350,000

SOURCES OF PROJECT FUNDING FY 2006 – 2010 (IN %):

Local = 100

STATE = 0 FEDERAL = 0

OTHER = %

DEPARTMENT PRIORITY

☑ Project supports essential services

THIS PROJECT ALSO HAS (A) COMPONENT (S) IN

☐ Sewer Capital Projects Fund



SERVICE AREA DEPARTMENT LOCATION
Water Fund Public Works Various

PROJECT TITLE PROJECT # (If existing)

### WATER TANK REHABILITATION

REQUEST TYPE Revision

If request is a revision from previous year's submission, please describe changes and explain reason for change The current request is based on inspection reports completed in 2004.



#### PROJECT DESCRIPTION

Rehabilitation of water tanks: Mill Lane & College Hill Coag Tanks 1 and 2 summer 2005, Fort Hill Tanks 1 and 2 summer 2006, College Hill 4.5 MG summer 2007, Boonsboro Road (dismantle) and Clay Street Reservoir (decommission) summer 2008, and Leesville Road and Candlers Mountain summer of 2009, and Huntingwood summer 2010. Engineering services for this project began in FY 2004 with the award of tank engineering services contract. Inspections of seven tanks have been completed and engineering, bidding, and construction will begin in FY 2005. This project is necessary to maintain compliance with Water Quality Standards

RELATIONSHIP TO COMPREHENSIVE PLAN

Chapter 15, Page 15.7, Goal 1, Objective 1.A.1: Focus on the maintenance of the existing water system and replacement of old mains.

PROJECT MANAGER(S)
William S. Shenk, Utilities
Engineer

PROJECT START DATE 04/2004 PROJECT COMPLETION DATE 06/2011 FIXED ASSET DESIGNATION Maintenance/Capital Outlay

TIMETABLE

% Appropriation Needed
Engineering & Architectural
Construction

	FY2	2006			FY2	2007			FY 2008 FY 2009			2009	109		FY2	2010			
Q1	<i>Q2</i>	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	<i>Q</i> 2	Q3	Q4
70	10		20	40	15		45	35	20		45		25		75	85	15		
85			15	45			55	55			45				100	100			

OPERATING BUDGET IMPACT (OVERALL OPERATING EXPENSES AND PROJECTED STAFFING REQUIREMENTS): None.

TOTAL PROJECT ESTIMATE (FOR THE COMPLETE LIFESPAN OF PROJECT)

TOTAL PRIOR APPROPRIATION THROUGH 7/31/04 \$2,500,000

FY 2006 -2010 ESTIMATE \$3,555,000

BEYOND FY 2010 ESTIMATE \$658,000

TOTAL PROJECT ESTIMATE **\$6,713,000** 

FIVE YEAR PROPOSED PROJECT APPROPRIATION BY SUB-PROJECT

						Program
Sub-Projects	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Period Estimate
Consultant Engineering	10,000	11,000	19,000	20,000	10,000	\$70,000
Contract Administration (Contractual)	20,000	10,000	16,000	10,000	10,000	\$66,000
Inspections (Contractual)	103,000	50,000	54,000	50,000	50,000	\$307,000
Construction	622,000	557,000	552,000	500,000	500,000	\$2,731,000
Contingency	160,000	56,000	55,000	50,000	50,000	\$371,000
TOTAL	\$915,000	\$684,000	\$696,000	\$630,000	\$1,260,000	\$4,185,000

#### FIVE YEAR PROPOSED PROJECT APPROPRIATION BY FUND

						Program
Fund	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Period Estimate
4017 Water Capital Project Fund	915,000	684,000	696,000	630,000	630,000	\$3,555,000
TOTAL	\$915,000	\$684,000	\$696,000	\$630,000	\$630,000	\$3,555,000

#### FIVE YEAR PROPOSED PROJECT EXPENDITURE CASH FLOW PROJECTIONS BY SOURCE OF FUNDING

Funding Source	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total Funding
Local: G.O. Bond	1,886,000	684,000	696,000	630,000	630,000	\$4,526,000
TOTAL	\$1.886.000	\$684,000	\$696,000	\$630,000	\$630,000	\$4,526,000

Sources of Project Funding FY 2006 - 2010 (in %):

LOCAL = 100% STATE = %

FEDERAL = %

OTHER = %

DEPARTMENT PRIORITY

Project has legal or regulatory mandate